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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,116	01/17/2002	Roger L. Schultz	2001-IP-004331 U1	1779

7590 03/26/2003

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EXAMINER

STEPHENSON, DANIEL P

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 03/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,116

Applicant(s)

SCHULTZ ET AL.

Examiner

Daniel P Stephenson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34-49 is/are allowed.
- 6) ☒ Claim(s) 1-7, 17-24 and 28-33 is/are rejected.
- 7) ☒ Claim(s) 8-16 and 25-27 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Drawings

1. The drawings are objected to because in Figure 8 there is a lead line with no reference numeral associated with it. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "110" and "11" have both been used to designate the magnetic ring in Figure 8. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "20" has been used to designate both a fracture in the wellbore and an electrical conditioning unit in Figure 9. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
4. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-7 and 17-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: some type of magnetization of the rotation member. Without said magnetization, no magnetic field can be generated by the rotation of the rotation member.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4, 7 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Eslinger et al. Eslinger et al. discloses the use of a rotation member (32) coupled to a support mechanism (51) inside a wellbore that has a passageway through which objects may pass (39). Fluid flow through this passageway causes the rotation member to rotate. The rotation member is a rotor that, as can be seen in the cross-section of Figure 3, is ring shaped. Naturally a ring shaped is composed of two semi-circular arches or arms. Since the arms are continuous they are assumed to be joined at the support mechanism. A starter rotor in the form of a plurality of vanes (col. 3 lines 56-57) which provide resistance to fluid flow and facilitate rotation of the rotor (32).

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10. Claims 1-5 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Cotter et al. Cotter et al. discloses the use of a rotation member (26) coupled to a support mechanism (30) inside a wellbore that has a passageway through which objects may pass (39). Fluid flow through this passageway causes the rotation member to rotate. The rotation member is a rotor that, as can be seen in Figure 2, is ring shaped around a central shaft. Naturally a ring shaped is composed of two semi-circular arches or arms. A starter rotor in the form of a plurality of vanes (col. 3 lines 56-57) which provide resistance to fluid flow and facilitate rotation of the rotor (32).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 22-24, 28-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stengel et al. in view of Tubel et al. Stengel et al. discloses a magnetized rotation member, rotor (22), that is magnetized by attached magnets (29). There are vanes attached to this rotor which act as a starter rotor to assist the rotation of the rotor. The rotation member has a passageway through which objects may pass. The rotor is supported by a support mechanism (23a and 23b) which couples it to the outside casing but allows rotation. Magnetic pickups (20) are positioned around the rotor. Fluid flowing through the casing causes the rotor to rotate which induces a magnetic field that is used to produce electrical energy by the magnetic pickups. Stengel et al. does not disclose that this device is placed in a production tubing. Nor does it disclose that there is a conditioning unit attached to the magnetic pickups for delivering usable power to downhole

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implements. The conditioning unit comprising a rectifier circuit, batteries, capacitive bank, fuel cell or a DC-DC converter unit. Tubel et al. (col. 14 lines 36-59) shows a downhole generator being used within a production string that is attached to a conditioning unit to deliver power to downhole apparatus. Wherein the conditioning unit comprises a rechargeable battery. The unit is attached to magnetic pickups which change magnetic flux into current. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the conditioning unit and production tubing of Tubel et al. with the device of Stengel et al. This would be done because the fluid flow within the production tubing of Tubel et al. would provide the prime mover for the apparatus of Stengel et al. and the conditioning unit would allow the energy from the apparatus of Stengel et al. to be utilized properly.

With regards to claims 23 and 31-33, it is notoriously conventional in the electronic art to use a rectifier circuit, capacitive bank, fuel cell or a DC-DC converter unit when conditioning the input of current for use somewhere else within a circuit. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use each of these features in the conditioning unit of Tubel et al.

Allowable Subject Matter

13. Claims 34-49 are allowed.
14. Claims 6 and 18-21 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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15. Claims 8-16 and 25-27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to disclose or suggest a magnetized rotation member having a passageway through which objects may pass through, that is rotated by fluid passing through said passageway as specifically called for in the claimed apparatus.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McDavid, Jr., Anderson et al., Kamp, Yumita, Weisser, Clark, the pre-grant publication to Shultz et al., Toyama, Rowe, and Rakestraw et al. all show similar elements to those of the present invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel P Stephenson whose telephone number is (703) 605-4969. The examiner can normally be reached on 8:30 - 5:00 M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (703) 308-2151. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1020.



David Bagnell
Supervisory Patent Examiner
Art Unit 3672

DPS *PPS*
March 21, 2003